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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,897	01/17/2002	Eric V. Erickson	01-199	7942

20306　　　　7590　　　01/19/2007 MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP 300 S. WACKER DRIVE 32ND FLOOR CHICAGO, IL 60606	**EXAMINER** ABELSON, RONALD B

ART UNIT	PAPER NUMBER
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 09 November 2006.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-17 and 19-24* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-12,14-17 and 19-24* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *1/17/2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some* c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the
> art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

2.   Claims 1-4, 6, 9-12, 14-17, and 19-23 are rejected under 35

U.S.C. 103(a) as being unpatentable over Robinson (US 6,963,926)

in view of Basso (US 7,002,906) and Jantz (US 6,487,677).

Regarding claim 1, Robinson teaches providing a

communication platform comprising a plurality of channel

resource devices / nodes, in which said channel resource devices

operate to establish call connections (call attempt process,

call request, col. 2 lines 43-57).

Robinson teaches receiving connection outcome results /

crankback of previous call connections handled by the channel

resource devices wherein the connection outcome results are

indicative of channel failures (call request blocked, cranked

back, col. 2 lines 49-51).

Although Robinson teaches receiving connection outcome

results of previous call connections handled by the channel

resource devices wherein the connection outcome results are

indicative of channel failures, the reference does not

explicitly teach the connection outcome results are indicative

of channel resource device failures.

Basso explicitly teaches the connection outcome results are

indicative of channel resource device failures (crankback, block

transit type "node").

Therefore it would have been obvious to one of ordinary

skill in the art, to modify the system of Robinson by

transmitting a crankback signal in the event of a resource

device failure / node blocked, as suggested by Basso. This

modification can be performed in software according to the

teachings of Basso. This modification would benefit the system

by informing upstream channel resource devices of downstream

channel resource device failures.

Although the combination teaches a statistical analysis

(Robinson: list of nodes ranked in order of their link blocking

probabilities, col. 2 lines 33-37), the combination does not explicitly teach generating a statistical analysis based at least in part, on the connection outcome results.

Jantz explicitly teaches generating a statistical analysis based at least in part, on the connection outcome results (updating, calculating probability of success as a function of historical information, col. 9 lines 61-64)

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination by updating the link blocking probabilities based upon historical information / crankback, as suggested by Jantz. This modification can be performed in software. This modification would benefit the system the system by ensuring that the link blocking probabilities reflect the current network environment.

Robinson teaches assigning an incoming call to at least one available channel resource device of the plurality of channel resource devices, said at least one available channel resource device selected at least in part, in response to the statistical analysis (each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37, 39-41).

Regarding claim 16, Robinson teaches a statistical analysis (each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Although Robinson teaches receiving connection outcome results of previous call connections handled by the channel resource devices wherein the connection outcome results are indicative of channel failures (call request blocked, cranked back, col. 2 lines 49-51), the reference does not explicitly the statistical analysis based at least in part, on connection outcome results indicative of channel resource design failures.

Basso explicitly teaches the connection outcome results are indicative of channel resource device failures (crankback, block transit type "node").

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Robinson by transmitting a crankback signal in the event of a resource device failure / node blocked, as suggested by Basso. This modification can be performed in software according to the teachings of Basso. This modification would benefit the system by informing upstream channel resource devices of downstream channel resource device failures.

Although the combination teaches a channel and statistical analysis based at least in part, on the connection outcome results indicative of channel resource device failures, the combination does not explicitly teach an evaluator operable to generating a statistical analysis based at least in part, on connection outcome results.

Jantz explicitly teaches an evaluator operable to generating a statistical analysis based at least in part, on the connection outcome results (updating, calculating probability of success as a function of historical information, col. 9 lines 61-64)

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination by updating the link blocking probabilities based upon historical information / crankback, as suggested by Jantz. This modification can be performed in software. This modification would benefit the system the system by ensuring that the link blocking probabilities reflect the current network environment.

Robinson teaches a storage buffer / routing table for storing the connection outcome results (each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Robinson teaches a call router for routing incoming calls to available channel resource devices selected in response to the statistical analysis (each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 2, the step of assigning an incoming call to the at least one available channel resource device is performed using the statistical analysis to identify channel resource devices that successfully connect calls (Robinson: each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 3, a non-preferred channel resource device is one which fails to connect calls, and wherein the step of assigning incoming call to the at least one available channel resource device, comprises to not assign the incoming call to the non-preferred channel resource device (call request blocked at all exists cranked back, col. 2 lines 48-51).

Regarding claim 4, the step of storing being performed after the step of receiving connection outcome results from

previous call connections. (Robinson: each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 6, the statistical analysis is a no weighting method (Robinson: each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 9, classifying the available channel resource device based at least in part, on the statistical analysis (Robinson: each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 10, the method is self adjusting in which, an available preferred channel resource device becomes an available non-preferred channel resource device due to a failure call connect attempt and the available non-preferred channel resource device becomes the available preferred channel resource device due to a successful call connect attempt (Robinson: each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Note, the examiner maintains the list is dynamically updated due
to crank back information (extends a routing history, packet
returned, col. 2 lines 53-58).

Regarding claim 11, indicating to a user / originator a
change in channel resource device status (col. 2 lines 41-43).

Regarding claim 12, determining which channel resource
devices are available (Robinson: each node has a routing table
containing a list of nodes ranked in order of their link
blocking probabilities, col. 2 lines 33-37).

Regarding claim 14, assessing a failure to the available
channel resource device upon an unsuccessful call connection
through the channel resource device (Robinson: call request
blocked, cranked back, col. 2 lines 49-51).

Regarding claim 15, reassigning the incoming call to a next
preferred available channel resource device (Robinson: each node
has a routing table containing a list of nodes ranked in order
of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 17, channel evaluator classifies available channel resource devices, at least in part on the statistical analysis generated from the previous call connect results. (Robinson: each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 19, channel evaluator classifies channel resource devices, at least in part on the availability of a channel resource device (Robinson: each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 20, incoming calls are assigned to available channel resource devices, and connected to the channel resource devices through the call router based at least in part, on the statistical analysis. (Robinson: each node has a routing table containing a list of nodes ranked in order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claims 21 and 22, available channel resource devices are one of a plurality of ingress ports, egress ports, and a plurality of channel processors / nodes (Robinson: each

node has a routing table containing a list of nodes ranked in

order of their link blocking probabilities, col. 2 lines 33-37).

Regarding claim 23, available channel resource device

failures are hardware failures (Basso: blocked transit type can

be node, col. 4 lines 31-34).

3.   Claim 5 rejected under 35 U.S.C. 103(a) as being

unpatentable over the combination of Robinson , Basso, and Jantz

as applied to claim 4 above, and further in view of McKee (US

6,810,343).

The combination is silent on the buffer is a circular

buffer.

McKee teaches a circular buffer (col. 3 lines 19-22).

Therefore it would have been obvious to one of ordinary

skill in the art, to modify the system of the combination by

incorporating within the routing table a circular buffer. The

suggestion for the modification is circular buffers allows for

the storing of the most recently collected data by continuously

overwriting the previously collected data (McKee: col. 3 lines

19-22). This enables an efficient use of buffer space.

4.   Claim 7 rejected under 35 U.S.C. 103(a) as being
unpatentable over the combination of Robinson, Basso, and Jantz
as applied to claim 1 above, and further in view of Lin (US
5,831,976).

The combination is silent on time-weighting.

Lin teaches time-weighting (col. 7 lines 47-49).

Therefore it would have been obvious to one of ordinary
skill in the art, to modify the system of the combination by
time weighing the connection outcome results. This modification
can be performed in software. This modification would benefit
the system by allowing for the most recent, which are the most
relevant, connection outcome results to be given more weight
than results that transpired far in the past.

5.   Claim 8 rejected under 35 U.S.C. 103(a) as being
unpatentable over the combination of Robinson, Basso, and Jantz
as applied to claim 1 above, and further in view of McCallister
(US 20010010681).

The combination is silent on an asymmetrical weighting
method wherein success receives one value, and failure receives
another value.

McCallister teaches an asymmetrical weighting method
wherein success receives one value, and failure receives another

value (physical failure, node attempts to reroute). Note, a single physical failure determines rerouting, therefore failure is given a higher weight than success.

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination by rerouting due to a single physical failure. This modification can be performed in software. This modification would benefit the system by performing immediate rerouting due to a physical failure.

6.   Claim 24 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Robinson, Basso, and Jantz as applied to claim 1 above, and further in view of applicant's admitted prior art 'AAPA'.

AAPA teaches channel resource device failures being software (pg. 3 lines 2-4).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination by storing in the routing table whether the call processor failed due to a software error. This modification can be performed in software. This modification would benefit the system by not routing to a call processor if the call processor is currently inoperable due to a software failure.

Response to Arguments

7.   Applicant's arguments with respect to claims 1-12, 14-17,

and 19-24 have been considered but are moot in view of the new

ground(s) of rejection.

Although the examiner does not agree with the applicant's

contention that Robinson does not teach nor *suggest* "generating

a statistical analysis based at least in part, on the connection

outcome results (applicant: pg. 8 2nd paragraph) and McCallister

does not teach nor suggest "receiving connection outcome results

of previous call connections that are indicative of channel

resource device failures (applicant: pg. 9 2nd paragraph), in

this office action, to expedite the prosecution of this

application, the examiner has provided explicit teachings of

these limitations.

Conclusion

8.   Any inquiry concerning this communication or earlier

communications from the examiner should be directed to Ronald

Abelson whose telephone number is (571) 272-3165. The examiner

can normally be reached on M-F.

If attempts to reach the examiner by telephone are

unsuccessful, the examiner's supervisor, Chi Pham can be reached

on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ronald Abelson
Examiner
Art Unit 2616

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